

IN THE CLAIMS

Claims 1-10 (Canceled).

11. (Currently Amended) A method comprising:

forming a first particle separating channel having an end and a length, said first particle separating channel adapted to cause particles to separate and focus along said length; and a second particle separating channel, said second particle separating channel transverse to said first particle separating channel and in communication therewith; and

forming a second particle separating channel along said length of said first particle separating channel, near an anticipated focus point for at least some of the separated particles, said second particle separating channel transverse to said first particle separating channel and in communication therewith; and

disposing at least two spaced apart first electrodes in said particle separating channels to maintain a first bias potential in said first particle separating channel, one of said first electrodes disposed in said first particle separating channel.

12. (Currently Amended) The method of claim 11 wherein disposing at least two spaced apart first electrodes in said particle separating channels includes disposing another of said first electrodes in said second particle separating channel, proximate said first particle separating channel.

13. (Original) The method of claim 11 further including disposing a second electrode in said second particle separating channel to maintain a second bias potential in said second particle separating channel.

14. (Original) The method of claim 11 further including disposing sieving media in said second particle separating channel.

15. (Original) The method of claim 11 further including coupling a reservoir to an end of either said first particle separating channel or said second particle separating channel.

16. (Original) The method of claim 11 further including disposing a conductivity detector in said second particle separating channel.

Claims 17-20 (Canceled).

21. (Currently Amended) A method comprising:
applying an electric field gradient to a solution containing charged particles under conditions that will cause at least some of the charged particles to focus along the length of ~~in~~ a first channel formed in a device; and

without transfer, applying an electric field to the focused charged particles to cause the focused charged particles to migrate through a sieve disposed in at least one second channel in said device, said at least one second channel situated proximate an area where at least some of said charged particles have focused, and said at least one second channel transverse to said first channel and in communication therewith.

22. (Original) The method of claim 21 wherein applying the electric field gradient to the solution containing charged particles under conditions that will cause at least some of the charged particles to focus in the first channel includes causing at least some of the charged particles to focus at or near said at least one second channel.

23. (Original) The method of claim 22 wherein applying the electric field gradient to the solution containing charged particles under conditions that will cause at least some of the charged particles to focus in said first channel includes establishing a convective force in said solution.

24. (Original) The method of claim 22 wherein applying the electric field gradient to the solution containing charged particles under conditions that will cause at least some of the charged particles to focus in said first channel includes applying a first electric field gradient and a second electric field gradient to a solution containing charged particles under conditions that will cause negatively charged particles to focus in said first channel in said first electric

field gradient and positively charged particles to focus in said first channel in said second electric field gradient.

25. (Original) The method of claim 24 wherein applying the first electric field gradient and the second electric field gradient to the solution containing charged particles under conditions that will cause negatively charged particles to focus in said first channel in said first electric field gradient and positively charged particles to focus in said first channel in said second electric field gradient includes causing at least some of the negatively charged particles to focus at or near at least one second channel and at least some of the positively charged particles to focus at or near at least another second channel.

26. (Original) The method of claim 21 further including causing said focused charged particles to be negatively charged.

27. (Original) The method of claim 21 wherein applying an electric field gradient includes applying a linear electric field gradient.

28. (Original) The method of claim 21 further including detecting said charged particles in said at least one second channel.

29. (Original) The method of claim 28 wherein detecting charged particles in said at least one second channel includes detecting a change in conductivity in a region of said at least one second channel.

30. (Original) The method of claim 21 wherein applying the electric field gradient to the solution containing charged particles includes applying an electric field gradient to a solution containing proteins or portions thereof.

31. (New) A method comprising:
applying a first electric field gradient and a second electric field gradient to a solution containing charged particles; and
causing negatively charged particles to focus in a first channel in said first electric field gradient and positively charged particles to focus in said first channel in said second electric field gradient.

32. (New) The method of claim 31 including causing at least some of the negatively charged particles to focus at or near at least one second channel and at least some of the positively charged particles to focus at or near another second channel.

33. (New) The method of claim 31 wherein causing negatively charged particles to focus in a first channel in a first electric field includes causing said negatively charged particles to focus in bands along the length of the first channel.